



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,046	05/29/2001	Nathanael Hill	ER-090-US-01	6093

7590 04/26/2004

H.B. Fuller Company, Patent Department
1200 Willow Lake Blvd.
P.O. Box 64683
St. Paul, MN 55164-0683

EXAMINER

HORTON, YVONNE MICHELE

ART UNIT	PAPER NUMBER
----------	--------------

3635

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/867,046

Applicant(s)

HILL, NATHANAEL

Examiner

Yvonne M. Horton

Art Unit

3635

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38,44-50 and 53 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-12,27-37,44-46,48 and 50 is/are allowed.
6) ☒ Claim(s) 13-16,18-26,38,47,49 and 53 is/are rejected.
7) ☒ Claim(s) 17 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claims 13-26,38,47-49 and 53 is withdrawn in view of the newly discovered reference(s) to BRUNNHOFER. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-16,21-26 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #6,035,596 to BRUNNHOFER. BRUNNHOFER discloses the use of a thermal barrier assembly including a channel (7) having a metal layer (9) bonded thereto wherein the channel comprises a casing, column 1, line 7 and column 3, lines 47-51. The applicant is reminded that depositing the layer by plasma is a method step and the method of forming a device is not germane to the issue of patentability of the device itself. In apparatus claims, it is the final product that is given patentable consideration. Regarding claims 14 and 15, the channel further includes a polyurethane adhesive, column 2, lines 42-44 and column 3, lines 37-39. In reference to claim 16, the adhesive composition has no greater than 5% shrinkage, column 2, lines 48-49.

Regarding claims 21-23, the channel (7) is metal, specifically aluminum or copper, column 3, line 35. In reference to claim 24, the channel further includes a polymer (4,5) and (15,19), column 2, lines 66-67 and column 3, lines 30-31. Regarding claims 25,26 and 47, the thermal barrier is a window or door casing, column 1, line 7 and column 3, lines 47-51.

Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #6,035,596 to BRUNNHOFER. BRUNNHOFER discloses the use of a thermal barrier assembly including a channel (7) having a metal layer (9) bonded thereto wherein the channel comprises a casing, column 1, line 7 and column 3, lines 47-51. The channel of BRUNNHOFER further includes a polyurethane adhesive, column 2, lines 42-44 and column 3, lines 37-39. The applicant is reminded that depositing the layer by plasma is a method step and the method of forming a device is not germane to the issue of patentability of the device itself. In apparatus claims, it is the final product that is given patentable consideration.

Claim 49 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #6,035,596 to BRUNNHOFER. BRUNNHOFER discloses the use of a thermal barrier assembly including a first structural component (1) and a second structural component (2) having a channel (7) disposed therebetween with a metal layer (9) bonded thereto wherein the channel comprises a casing, column 1, line 7 and column 3, lines 47-51. The channel of BRUNNHOFER further includes a polyurethane adhesive, column 2, lines 42-44 and column 3, lines 37-39. The applicant is reminded that depositing the layer by plasma is a method step and the method of forming a device is not germane to

Art Unit: 3635

the issue of patentability of the device itself. In apparatus claims, it is the final product that is given patentable consideration.

Claim 53 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #6,035,596 to BRUNNHOFER. BRUNNHOFER discloses the use of a window or door casing, column 1, line 7 and column 3, lines 47-51, thermal barrier assembly including a channel (7) having a metal layer (9) bonded thereto wherein the channel comprises a casing, column 1, line 7 and column 3, lines 47-51. The channel of BRUNNHOFER further includes a polyurethane adhesive, column 2, lines 42-44 and column 3, lines 37-39. The applicant is reminded that depositing the layer by plasma is a method step and the method of forming a device is not germane to the issue of patentability of the device itself. In apparatus claims, it is the final product that is given patentable consideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,035,596 to BRUNNHOFER. BRUNNHOFER discloses the basic claimed thermal barrier except for explicitly detailing the shear strength thereof. Although BRUNNHOFER is silent in this regard, the applicant is reminded that he provides no criticality for any specific or desired shear strength. As a matter of fact the applicant provides a wide range of shear strength of 2500-7500. It would have been obvious to one having ordinary skill in the art at the time the invention was made that the selection of shear strength be suitable for the use intended as an obvious matter of design choice. For instance, a member made from aluminum will have a shear strength quite different from a member made from copper, steel or plastic. The physical characteristics of these materials govern the shear strength of the thermal barrier.

Allowable Subject Matter

Claims 1-12,27-37,44-46,48 and 50 are allowed.

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-53 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909. The examiner can normally be reached on 6:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703) 308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YMH
April 19, 2004

